

fi [a] the layer of hydrous polymer gel to the nip at a speed sufficiently less than the [rotational] circumferential speed of said cutting roll to avoid congestion.

Claim 27, line 2, change to read --for receiving the cutting edges--.

REMARKS

Favorable reconsideration of the present application is respectfully requested.

Claims 17, 19, 21, 22, 26 and 27 remain active in the application, while Claims 2, 12, 13 and 18 have been withdrawn from consideration.

In response to the rejection under 35 U.S.C. §112, first paragraph, Claim 26 has been amended to recite that the conveying device is driven to convey the layer of hydrous polymer gel to the nip at a speed sufficiently less than the circumferential speed of the cutting roll to avoid congestion. Basis for this is found at the bottom of page 4 and on page 10.

The claims have been revised in light of the rejection under 35 U.S.C. §112, and conform to the Examiner's suggestions, with the following exceptions. There is structural cooperation for the conveying device insofar as it is recited as conveying the layer of hydrous polymer gel to the nip; the phrase "the group" in Claim 22 conforms to the acceptable form of a Markush claim (MPEP §2173.05(h)).

The sole independent Claim 26 has been rejected as being anticipated by the U.S. patent to Johnson et al. It has also been rejected as being obvious over Heywood in view of Williams. However, Applicants respectfully submit that no combination of these references teaches or suggests the claimed device including a conveying device driven to convey the layer of hydrous polymer gel to the nip at a speed sufficiently less than the circumferential speed of the cutting roll to avoid congestion.

As has been extensively discussed in the past, the claims are directed to a device for processing hydrous polymer gel of variable thickness, including a conveying device arranged

to convey a layer of hydrous polymer gel to the nip between the cutting roll and the backup roll at a speed less than the rotational speed of the cutting roll in order to avoid congestion. For example, the conveying device 100 conveys the layer 10 of hydrous polymer gel to a nip between the cutting roll 11 and the backup roll 12 in the illustrated embodiment. By rotating the cutting roll at a speed greater than the speed of advancement of the gel via the conveying device, the cut sections are accelerated away from the nip, and congestion at the nip is avoided.

According to the Johnson et al reference, glass wool is cut into plugs 50 by a rotating cutter 22 which is backed up by an anvil roll 26. The cutter 22 is driven by a driving device 30, evidently a motor.

There is no description of the driving of the anvil roll 26; it is evidently driven by frictional contact with the cutting roll 28. Similarly, there is no description that the conveyers 14 and 18 which support and compress the wool blanket 16 are driven. They evidently respond to the advancement of the blanket itself by the rotation of the cutting roll 28.

Therefore, the "conveying device" which conveys the layer of material to the nip between the cutting roll 28 and the anvil roll 26 in Johnson et al is the cutting roll itself, which certainly conveys the roll blanket at the same speed as its own circumferential speed. Conversely, if one were to say that the "conveying device" in Johnson et al was the conveyor belt 18, since these belts merely passively respond to the advancement of the blanket 16 by the drive of the cutting roller 28, they convey the blanket to the nip at the same speed as the circumferential speed of the cutting roller, and certainly do not convey the blanket to the nip "at a speed sufficiently less than the circumferential speed of the cutting roll to avoid congestion."

As for the rejection based upon Heywood in view of Williams, as was extensively explained in the previous response, not only does Heywood fail to disclose a conveyor which

advances a product to a cutting roll at a speed less than at the speed of the cutting roll, but this would be contrary to the teachings of Heywood.

The machine of Heywood is directed to forming fillers, binders and wrappers of cigars. In Heywood, a common smooth roller C is driven by a driving gear D which engages with a driven gear E for driving the cutting roller F which forms a nip with the common roller C. An endless apron or conveyor L passes around the common roller C, and is evidently driven by the engagement with the common roller C.

The leaves of tobacco are conveyed by the apron L to the nip between the cutting roller F and the common roller C, where they are cut to provide the stock for fillers, binders and wrappers of cigars. For example, the stock for the fillers are cut "at exactly the right length" (right hand column, line 9) by the horizontal blades e of the cutting roller F.

Those skilled in the art would not have been motivated to have driven the conveying device L at a speed different from the cutting roll, because it would be *unnecessary or undesirable* in Heywood. By driving the tobacco leaves on the apron at the same speed as the cutting roll, the tobacco leaves in Heywood may be cut without wrinkling or shearing in order to provide filler having exactly the right length: since the bottommost leaf in the layer of leaves on the apron is cut after the topmost leaf, a speed differential will tend to shift the layers of leaves as they are being cut. If one were to drive the conveying device of Heywood so as to permit a lesser rotational speed of the conveying device as compared to the cutting roll, the resulting lesser rotational speed would undesirably produce either wrinkling or shearing in the cut stock, depending upon the speed differential between the conveying device and the cutting roll. Thus, not only is there no motivation taught in Heywood for driving the conveying device at a speed different from the cutter, but Heywood suggests a motivation to *avoid* such a construction -- a teaching *contrary to the claims*.

As for Williams, the Examiner has not alleged that Williams actually discloses a

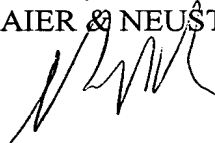
conveyer driven at a speed different from that of a cutter ("as is well known in the art, these conveyers can be driven at any desired speed" (emphasis added)). Thus, given the fact that providing a conveying device driven to convey a layer of product at a speed less than the circumferential speed of a cutter is not shown in either Heywood or Williams, and the fact that this would have been contrary to the teachings of Williams, Applicants respectfully submit that the Examiner has failed to put forth a *prima facie* case of obviousness of Claim 26, or of any of its dependent claims, based upon Heywood and Williams.

Concerning paragraphs 11, 13 and 15 of the Office Action, the Stream reference was only cited for the teaching of a backup roll with depressions, and provides no teachings for overcoming the shortcomings of the primary references with respect to independent Claim 26.

Applicants therefore respectfully submit that the present application is in a condition for allowance and respectfully solicit an early Notice of Allowability.

Respectfully submitted,

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